

Patent claims

1. Device for connecting a longitudinal carrier (11) to a bone fixation means (1), particularly a pedicle screw comprising

A) a connection element (5) arranged coaxial to the central axis (2), with an upper end (6), a lower end (7), a cavity (8) coaxial to the central axis (2) passing through the connection element (5) from the upper end (6) to the lower end (7), which is designed tapering towards its lower end (7) by means of at least one shoulder (9), and a channel (10) passing through the connection element (5) transversely to the longitudinal axis (2) for receiving a longitudinal carrier (11);

B) a sealing cap (12), comprising a front end (20), a rear end (19), a second cavity (18) open at the front end (20) for receiving the connection element (5) and a second channel (17) transversely to the central axis (2) and open towards the front end (20) of the sealing cap (12); and

C) tensioning means (13), which can be fixed to the sealing cap (12) at its rear end (19) and by means of which a longitudinal carrier (11) inserted in the channel (10) can be fixed in the connection element (5),
characterised in that

D) externally on the connection element (5) and in the second cavity (18) in the sealing cap (12) latch-in arresting means (21) are arranged complementary to each other, which serve for securing the sealing cap (12) to the connection element (5).

2. Device according to Claim 1, characterised in that the arresting means (21) are arranged in a cross-section surface orthogonal to the central axis (2) on the periphery of the connection element (5) and on the periphery of the second cavity (18) in the sealing cap (12).

3. Device according to Claim 2, characterised in that the arresting means (21) comprise bulges (15) externally on the connection element (5) and complementary depressions (16) in the second cavity (18) in the sealing cap (12).

4. Device according to one of the claims 1 to 3, characterised in that the shoulder (9) comprises a level bearing surface (25) of circular-ring shape concentric to the central axis (2).

5. Device according to one of the claims 1 to 4, characterised in that the sealing cap comprises (12) two slots (34) arranged orthogonal to the second channel (17), which penetrate the wall of the sealing cap (12) from the direction of the front end (20).

6. Device according to one of the claims 1 to 5, characterised in that it comprises a bone fixation means (1) with a central axis (2), a front segment (3) and an axially adjoining rear segment (4), wherein the rear segment (4) has a cylindrical or prismatic form and the front segment (3) is used for fixation to a bone, and that the rear segment (4) of the bone fixation means (1) is arrested by the shoulder (9) axial towards the lower end (7) of the connection element (5) whereas the front segment (3) of the bone fixation means (1) protrudes axially at the lower end (7) of the connection element (5).

7. Device according to Claim 6, characterised in that the bone fixation means (1) is a pedicle screw with a screw shaft (24) having an external thread (26) and a screw head (30) at the end position.